

4-1 GENERAL:

a. **MANEUVER UNITS:** deploys with organic fire support assets. Field artillery tactical missions and amount of support provided are contained in the Corps, Division and BCT OPODs. Planning and coordination of fire support assets are the responsibility of the Fire Support Coordinator at the respective unit level. The COG through EXCON controls CAS allocations. Units may request additional fire support assets IAW UR 350-50.

b. **CL V APPROVAL AUTHORITY:** EXCON in coordination with the JMRC Force Field Artillery Headquarters (FFAHQ) (Vampire TAFF) approves unit basic loads and establishes controlled supply rates for each weapon system through higher headquarter's orders. BLUFOR requests forward positioning and emergency requisitions of ammunition are requested through JMRC FFAHQ (Vampire TAFF) on operational and/or administrative/logistics nets.

c. **TRAINING LOCATIONS:** All Battalion TOCs, combat trains (if operating in a dual trains configuration), field trains, firing platoons with howitzers, MLRS batteries and platoons, and radars participating in the rotation must physically occupy positions within the training area (or Maneuver Coordination Areas/Local Training Areas). Units will not occupy notional locations unless previously approved by Operations Group S3 Plans or EXCON.

d. **WHITE CELL UNITS:** Battalion Emergency Operations Centers (EOCs), and other administrative elements not participating in the rotation, cannot assist or pass tactical information to units in training.

4-2 JMRC FFAHQ: The Vampire Training Analysis and Feedback Facility (TAFF) functions as the JMRC Force Field Artillery Headquarters. FA units submit all operational requests to the FFAHQ (Vampire TAFF) for approval by the FFA Commander (V07) These include requests for counter-fire coverage, additional Q37 coverage, changes to the FA Organization for Combat, changes to the controlled supply rate (CSR), meteorological (MET) support, and requests for ammunition for immediate consumption.

a. **COMMUNICATIONS:** The DS FA Battalion Tactical Operations Center must maintain 24 hour voice and digital communications with FFAHQ (Vampire TAFF). Voice communication is on 33.800 and digital communications is on 58.350 or via SIPRNET. Both nets are single channel secure on the

rotational unit fill. The JMRC FFAHQ does not operate on frequency hopping.

b. **Q37 RADAR COVERAGE:** It is a unit responsibility to request Q37 coverage. The DS FA Battalion may request Q37 coverage in support of planned or emergency displacements of the Q36. Units should submit requests for Q37 coverage NLT 18 hours in advance to maximize the opportunity for the FFAHQ to allocate assets to ensure coverage during Q36 displacements.

1. Pre-planned Requests. The FFAHQ must receive pre-planned requests NLT 18 hours prior to execution to ensure proper radar allocation. Requests must specify duration, starting, and ending DTGs.

2. The FFAHQ must receive immediate requests must be received NLT 30 minutes prior to the coverage requirement. If the coverage requested does not conflict with FFAHQ and Corps requirements, the FFAHQ Commander may approve the request.

3. The FFAHQ Commander (V07) or the FFAHQ S3 (V03) approves radar coverage requests.

4. Coverage requests are submitted digitally to the FFAHQ. Q-37 support for a brigade will not exceed one CFFZ and two CFZs.

5. Radar Positioning: The FFAHQ will position the Q-37 radars to best support Division operations.

c. **ADDITIONAL COUNTER FIRE COVERAGE:** The FFAHQ will determine the Common Sensory Boundary (CSB). The DS FA Battalion may request the FFAHQ change the Common Sensor Boundary (CSB) and radar coverage from DIVARTY. If approved, the FFAHQ assumes counterfire responsibility for OPFOR elements beyond the new CSB for the time period requested. The FFAHQ Commander, (V07) approves all counter-fire coverage requests.

d. **MET SUPPORT:** FFAHQ provides MET support to the DS FA BN upon request. Units submit a requested MET schedule NLT D+3 to FFAHQ (Vampire TAF). FFAHQ is capable of providing Computer and/or Ballistic METs upon request. (See FFAHQ TACSOP). Units may also download the current MET from the SIPRNET at <http://weather.offutt.af.smil.mil>. Failure to apply current MET in accordance with the procedures in Chapter 11 of the FM 6-40 will result in less accurate indirect fires.

4-3 REQUIRED FIRE SUPPORT REPORTS:

Fire Support Elements (FSEs) and Information Operations (Info Ops) sections will provide one unclassified paper copy and one unclassified digital copy of all Fire Support (FS) and Info Ops orders and / or briefings to their Fire Support and / or Field Artillery OC. The FSEs and Info Ops sections will provide their O/Cs updates of their documents as the produce and disseminate them.. The BCT FSE or the FA Battalion Fire Direction Center (FDC) will transmit target lists, fire plans, and Fire Support Coordinating Measures (FSCMs) to the FFAHQ (Vampire TAFF) digitally.

4-4 FIRE CONTROL:

a. **HOWITZER CREWS:** will perform all crew drills and fire an M30 pyrotechnic from the MGSS or a shotgun shell (M119) to replicate firing the howitzer. Each howitzer will fire one M30 Pyrotechnic for each round fired. Additionally, for ammunition accountability the unit will hand one round, fuze, and charge card for each round fired to its respective residue pit or OC. The number of M30 Pyrotechnic rounds loaded into the MGSS will not exceed the current turret load for the howitzer. Units will reload the MGSS IAW their crew resupply SOP. Only howitzers firing a M30 Pyrotechnic or blank shotgun shell will receive credit for fire mission casualty assessments.

b. **IF SHOTGUN SHELLS ARE UNAVAILABLE:** The OC for M119 howitzers will detonate one hand grenade simulator to replicate signature effects for each volley from a platoon or battery.

c. **MLRS CREWS:** will perform all crew drills to standard. The OC will detonate one hand grenade simulator and one smoke grenade to replicate signature effects for each volley. Additionally, for ammunition accountability the unit will hand one rocket or missile pod to its respective OC for each mission fired.

d. **MORTAR CREWS:** will perform all crew drills. The mortar OC will also detonate one hand grenade simulator to replicate signature effects for each volley from a platoon or section. FOR OPFOR, the mortar crew will fire one M16/M4 with blank adapter into the mortar for each round to be fired to replicate the firing of the mortar. OPFOR mortar and rocket crews will establish physical firing positions with mock up mortars and rocket systems and report their location to Warrior Tango. During HIC rotations, OPFOR artillery (120mm and above will be replicated by notional units)

e. **PRIOR TO FIRING A MISSION:** or subsequent corrections, the FDC must give the O/C an accurate artillery mission card (buckslip) to receive replication of fires. The card must include:

1. Target number
2. Target location
3. Pieces to fire
4. Special instructions
5. Type of projectile
6. Charge
7. Fuze time setting when applicable
8. Number of rounds
9. Range to fuze function
10. Range to impact

f. FIRE MISSION TIME STANDARDS:

All units will fire at their sustained rate of fire. The initial time standards for notional firing units are listed for that weapon system in the applicable MTP. After the second operation, the notional unit's fire mission time standards will be the average fire mission times of the rotational firing unit.

1. Initial notional howitzer battery times.
 - (a) Initial mission receipt to first shot: 3 minutes.
 - (b) Subsequent volley request to shot: 1 minute.
 - (c) Shift time between targets: 1 minute.
2. Initial notional MLRS launcher times.
 - (a) Hot launcher at a hide point: 6 minutes.
 - (b) Hot launcher at a firing point: 4 minutes.
 - (c) Cool launcher at a hide point: 14 minutes.

4-5 DIRECT FIRE ENGAGEMENTS: At the beginning of the rotation, a firing unit must demonstrate to its O/C its proficiency in direct fire techniques against dismounted and mounted threats.

a. **PALADIN SECTIONS:** Will demonstrate their ability to direct fire with, one-man, one-sight or with an AFCS. To fire Killer Junior, it must have correctly computed Killer Junior tables posted in its howitzer.

b. **AN M119 SECTIONS:** will demonstrate the one-man, one-sight method. They must demonstrate they know how to employ an APERS round and the area it affects.

To fire Killer Junior, sections must have correctly computed Killer Junior tables at its howitzer.

c. **ENGAGEMENT CREDIT:** An OC must observe an engagement for the unit to receive credit. The howitzer must orient its tube toward the target and apply the correct quadrant at the range determined.

d. **MGSS/BLANK SHOTGUN SHELLS:**

M109 series howitzer will have an MGSS system to simulate firing. Towed howitzer sections will use blank shotgun shells to simulate firing. Howitzer sections will fire a M30 pyrotechnic or shotgun shell from the breech for each round of the engagement. For safety reasons, OPFOR must be beyond 50 meters to fire the shotgun shell. When an M109 series howitzer's MGSS rack is expended, the crew will conduct upload procedures IAW their unit SOP and reload the MGSS rack with one M30 pyrotechnic per round loaded into the turret.

e. **BLANK SHOTGUN SHELL SAFETY:** If OPFOR is closer than 50 meters, and the howitzer is firing with blank shotgun shells, the section chief will orient the tube on the target, apply the correct quadrant for the determined range, and then cross his arms over his head to signify that he is engaging. The OC will then adjudicate the engagement.

f. **MORTAR PLATOON WITHOUT AN FDC:** The mortar crew must show the mortar OC on the ground the range to the target and have a mortar set-up in the direction to be fired. The mortar crew will then follow 4-4(d). An OC will be present and verify that the mortar firing site is properly established, and meets the parameters for which it will be used (i.e. mask and overhead clearance, range to intended target, and replication). Prior to firing, the OC will determine the point of impact on a map using the range given by the mortar crew and the actual direction the mortar is pointed in. OPFOR mortar crews will inform the Warrior TAF of all fire missions. Warrior TAF will notify the EXCON Battle Captain and FS TAF of the caliber, type and number of rounds, launch grid, target grid, and time of firing NLT 10 minutes prior to launching. The FS TAF will determine based on BLUFOR's radar plan and the OPFOR indirect attack data if an acquisition is received and appropriately communicate such information to BLUFOR.

4-6 FIRE MARKING: The Dragon fire marker team will replicate the effects of all indirect missions. The fire markers will replicate specific missions as follows:

a. **ARTILLERY MISSION (HE /DPICM):**
1. Initial volley: One air burst simulator, one artillery simulator, one hand grenade simulator, one HC smoke grenade.

2. Duration: one hand grenade simulator every 30 seconds.

b. **MORTAR MISSION:**

1. Initial volley: one air burst simulator, two hand grenade simulators, one HC smoke grenade.

2. Duration: one hand grenade every 30 seconds.

c. **MLRS/MRL:**

1. Initial: Five air burst simulators, five hand grenade simulators.

2. Duration: One hand grenade simulator every 30 seconds.

d. **FA DELIVERED SCATTMINE (FASCAM):** see Chapter 5, paragraph 5-6d. Marking Artillery Scatmine.

e. **CHEMICAL STRIKE:** Five air burst simulators, one yellow smoke grenade.

f. **ILLUMINATION:** One illumination flare every 30 seconds or as directed by Vampire TAF.

g. **SMOKE (HC AND WP):**

1. Duration less than 10 min: required number of smoke grenade for target size.

2. Duration for over 10 min: required number of smoke pots for target size.

h. **AIR DELIVERED VOLCANO MINEFIELD:** see chapter 7, paragraph 7-11c.

i. **COPPERHEAD/KRASNA POL:** One artillery simulator.

4-7 ATTACK CRITERIA: JMRC casualty assessment tables are unclassified approximations of Joint Munitions Effectiveness Manuals for Surface-to-Surface weapons (JMEM-SS) tables. Units may use the JMEM-SS casualty assessment tables to assist in planning the volume of fires for targets. Units should also determine their attack criteria base on the JMEM, Graphic Munitions Effectiveness Tables (GMET) or AFATDS solution in conjunction with the commander's guidance for fire support.

4-8 MOVEMENT AND POSITION REQUIREMENTS:

a. **NOTIONAL FIRING UNITS:** Defined as firing platoons without howitzers, launchers, or FDC/POCs, move on the battlefield at a rate of 3 minutes a road distance kilometer (20 km/hr). All planned or unplanned moves by notional units must have a designated route. The notional unit's controlling FA TOC must provide that route to an FA OC to replicate the move in the IS and to

ensure appropriate allocation of time for the move. The notional unit will not proceed to the next position until directed by the controlling FA TOC.

SYSTEM	DISPLACEMENT	EMPLACEMENT
PALADIN/	2	3
MLRS	2	3
Q36	10	15
Q37	20	30

Table 4-1. Notional Unit Emplacement/Displacement Times.

b. NOTIONAL UNIT MOVEMENT:

Upon receiving the order to move, notional units cannot begin movement until the displacement time is complete and the unit has finished firing its current mission. Early notice to move does not decrease the displacement time. If a controlling FA TOC wants a notional unit to begin moving at a specified time, it must direct displacement to begin at the appropriate time. Units cannot fire while displacing. Once movement is complete, a notional firing unit cannot fire until emplacement is complete. If a controlling FA TOC wants to direct an in-place, ready to fire time, it must include emplacement time in its planning factors. For subsequent operations, the displacement, movement, and emplacement times are the same as the average times of the rotational firing unit.

c. NOTIONAL UNITS FIRING ON THE MOVE: Notional firing units can receive a fire mission while on the move. The emplacement time will remain the same as above, to reflect the time it takes to notify the unit and for the unit to stop at a suitable location and prepare to fire. The TOC OC will inform the BN FDC of the notional unit's location. Upon receiving end of mission, the unit will begin to displace according to the times above, and continue to its original destination. The notional firing unit will only remain in place if directed by the controlling FA TOC.

d. RECYCLE TIME FOR NOTIONAL BLUFOR AND OPFOR UNITS: Recycle time for notional BLUFOR and OPFOR MLRS launchers is 20 minutes. This includes moving to the reload point, reloading of one or two pods, updating survey, and moving to the next hide area or firing point within the same platoon Operations Area (OPAREA). If the subsequent

hide area/firing point is in a different platoon OPAREA, the launcher will move at 20 km/hr along a straight-line from the old to the new OPAREA will be determined. Recycle, displacement, movement, and emplacement times of notional launchers will be the same as the training unit's average time after the second battle.

e. **SURVEY:** All firing units and supporting radars require common and correct survey data to be accurate. Failure to use common and correct survey data will result in a degradation of accuracy.

1. Using a Position Azimuth Determining System (PADS) or conventional survey to initialize and update Paladins, MLRS, and radars ensures common survey as does using PADS or conventional survey to establish Survey Control Points (SCPs) and orienting stations for towed howitzers, mortars, and forward observers.

2. Using Global Positioning Systems (GPS) to determine individual weapon and observer locations does not provide common survey.

3. Hasty survey is less accurate than GPS.

4. O/Cs will verify survey data at all firing unit, radar, and other observer locations.

f. SURVEY REPLICATION TIMES FOR NOTIONAL UNITS:

1. For PADs to provide survey to notional units, the PADS will move at 20km/h and take 10 minutes to establish common and correct survey control for that notional firing unit.

2. When functional FDCs/POCs represent firing units, the survey section must establish survey control at the firing unit (FDC/POC) location to ensure correct and common survey.

g. PENALTIES FOR NOT FIRING AT MY COMMAND MISSIONS:

1. BLUFOR howitzer sections must properly execute all procedures to extract the rounds before firing another mission.

2. Notional BLUFOR and OPFOR howitzers must wait 15 minutes from end of mission before they may resume firing to replicate extracting the round..

4-9 COUNTER FIRE AND SURVIVABILITY:

a. BLUFOR will conduct counterfire operations, normally targeting OPFOR fire support

b. BLUFOR units may receive counterfire from OPFOR artillery. Notional BLUFOR MLRS units will automatically execute the survivability move criteria established by the BLUFOR MLRS battery commander.

c. When a notional unit receives a volume of fires sufficient to destroy 4 a tube or launcher according to manual adjudication, the following actions will occur:

1. The unit must conduct a move of at least 500 meters.

2. The headquarters element must direct the unit to move to a new location along a specified route, provided to the O/C.

3. The unit may begin displacing while OPFOR suppresses it. Units will displace, move, and emplace according to the notional unit movement table.

d. Q36 radar acquisitions require tracking thru 50 mils of elevation. Probability of detection for rounds tracked thru 50 mils are based on range as follows:

1. Mortars: 90% from 3,000 – 18,000 meters thru the center 1067 mils of the search zone. Outside the center zone the 90% detection probability is from 3,000 – 15,000 meters. For ranges from 750 – 3000 meters, the probability decreases as follows; 2,000 – 2999 meters; 75%, 1000 – 1999 meters; 50 %, 750 – 999 meters; 45%.

2. Artillery: 70% for all ranges between 3,000 – 14,500 meters thru the center 1067 mils. Outside the center zone the 70% detection probability is from 3,000 – 11,500 meters

3. Rockets: 80% thru the entire search zone from 8,000 – 24,000 meters for rockets delivered from original military launch systems. 25% for rockets launched from hasty delivery systems that do not follow a normal ballistic trajectory.

e. Lightweight Counter Mortar Radar (LCMR) detects mortars from 1000 – 6500 meters, and calculates Launch Point Locations (LPLs) within a 100 meter, 50% Circular Error Probable (CEP) when mask angles are less than 71 mils. 85% of all rounds will generate an LPL within 200m.

1. 60 mm; 100 meter CEP, 75% from 1,000 – 4,000 meters
2. 81mm; 100 meter CEP, 75% from 1,000 – 5,000 meters
3. 120 mm; 100 meter CEP, 75% from 1,000 – 6,000 meters

4. Over 6,000 meter; 25%, 150 meter, 30% CEP

f. Failure to properly emplace a radar may result in the radar having no acquisitions, or a greater frequency of unwanted acquisitions.

g. Failure to ensure a radar has a minimum of 50 mils of track volume will result in the radar being unable to acquire most indirect fires.

h. Failure of a radar to have common survey with the unit firing its acquisitions will decrease accuracy.

4-10 ACCURACY OF FIRES: To provide more realistic battlefield effects, JMRC degrades the accuracy of indirect fires when units fail to meet the five 5 requirements for accurate predicted fire.

The following are some examples:

- a. Survey or database errors
- b. Lack of common survey.
- c. Failure to record or apply Muzzle

Velocity Variances (MVVs)

- d. Not MET IAW FM 6-40 Chapter 11.

Radars not using the most current MET when wind speeds exceed 20 knots/hour.

- e. Incorrect target location.
- f. Inaccurate piece

1. Aiming point errors
2. Failure to boresight / verify

boresight

3. Fire Control Alignment Tests (FCATs) not within tolerances.

4. Inoperative fire control panels on MLRS

g. Incorrect computation of minimum quadrant.

4-11 LASER OPERATIONS: Force-on-force. The Hellfire Ground Support System (HGSS), Mini Eye-safe Laser Infrared Observation Set (MELIOS) and M1/M2/M3 family of vehicles with Eye-safe Laser Filters (ELF) are the only laser range-finders/designators allowed to laze or designate during force on force. The HGSS will replicate the Ground/Vehicular Laser Locator Designator (G/VLLD). BLUFOR will draw HGSS on a one for one basis after a Fire Support O/C verifies the presence of an operational G/VLLD.

4-12 SPECIAL MUNITIONS (Copperhead, Illumination, Smoke, FASCAM, Excalibur):

Actual firing units must demonstrate proficiency in the procedures to employ each type of special munitions before notional firing units can fire those munitions. Unless specified by the COG, a

munition must be in the USAREUR inventory before BLUFOR may use it at JMRC

a. **COPPERHEAD:**

1. The firing unit must have an M823 Copperhead trainer to fire a Copperhead mission. Each section must demonstrate proficiency in preparing a Copperhead training round for firing before it can fire that round during operations. A firing unit may demonstrate its proficiency to a firing battery OC during the preparation for an operation to enable it to fire Copperhead during execution. Notional firing units fire Copperhead after they demonstrate procedural proficiency.

2. O/Cs determine the effectiveness of Copperhead missions. O/Cs base this on angle T, observer location, target location within the appropriate Copperhead template, , cloud height, Pulse Repetition Frequency (PRF) codes, observer and firing unit range to target, , computational procedures, and the timing and length of the laze.

3. The FDC/POC must compute and conduct all Copperhead fire missions IAW procedures in FM 6-40, and its unit SOP.

b. **ILLUMINATION:** Since JMRC replicates mortar and artillery illumination with hand-held parachute flares, Firemarkers cannot adjust the burst height or spread. One flare represents one illumination round.

c. **SMOKE:** JMRC replicates mortar and artillery smoke using smoke grenades, smoke pots and smoke. Firemarkers replicate target attitude and duration as computed by the FDC.

d. **FASCAM:** Unless directed by the COG, the maximum BLUFOR allocation for artillery FASCAM is 144 RAAM and 18 ADAM munitions for each battle. This is enough to establish a 400x400 meter medium density minefield. The unit may employ only one 400x400, 200x800, 200x400 or 200x200 minefield.

4-13 COMBAT SERVICE SUPPORT:

a. All casualties will be handled IAW Chapter 8 of this EXPRO with the following exception: Upon receiving casualties, notional platoons of the DS unit (represented by FDCs only) will send casualty feeder reports. No evacuation is required. Self and buddy aid will be rendered. Casualties will be in effect for 5 hours.

b. **MAINTENANCE:** must be performed in the training area as a part of the exercise.

Non-mission capable vehicles must be recovered to the combat trains/UMCP or to the BSA. During HIC, vehicles road-marching out of Albertshof will not return to Albertshof if they become non-mission capable. Units may only repair vehicles in Cantonment Areas when such areas are designated as "Forward Operating Bases", and the appropriate logistical support is present.

c. **LOGISTICS:** All logistical support will be conducted tactically and based from field locations. No logistical support will be based out of Camp Albertshof or other cantonment area, unless those areas are designated Forward Operating Bases by the JMRC S3 for the training exercise.

1. Classes I, II, III, and VI will be handled on an actual basis, with no simulations granted.

2. Classes IV, VII and VIII of supply will be requested through appropriate channels to the FSB. An O/C at the Brigade Support Area will verify/approve the request.

3. Class IX will be handled on an actual basis except for Simulated Battle Damage Assessments (SBDA). Chapter 8 of this EXPRO describes the procedures for SBDA repair.

4. Class V for ESX units: Inert rounds will be loaded on a 1:1 basis to constitute a valid UBL, replicating weight and volume.

(a) Blank ammunition for 5.56 mm, 7.62 mm, .50 caliber, MGSS M30 rounds, blank shot gun shells, and AT-4 (VIPER) ATWESS cartridges will be issued in a tactical manner. Ammunition supply procedures will be conducted IAW Chapter 8 of this EXPRO and the remainder of this paragraph.

(b) Upon the conclusion of O/C link up (MILES check and safety brief), the DS battalion begins with their START-EX UBL on hand and uploaded on their vehicles. An FA CSS O/C must authenticate subsequent DA FORM 581s to replace ammunition expended/destroyed, not to exceed the CSR. Copies of the authenticated DA FORM 581s must be provided to the FA CSS O/C or individual designated by the CSS O/C. An O/C must sign the DA FORM 581 prior to the battalion ammunition officer physically drawing the ammunition from the ATP/ASP/CARP. Ammunition is requisitioned IAW unit FSOP. Failure to have these forms or another local form that serves the same purpose will result in the platoon not receiving resupply. Units will draw

UBL and re-supply ammunition out of the following tables:

DODAC	105 mm	NOM
C449	ILLUM	M314A3
C445	HE	M1
C463	RAP	M913
C473	CH68	M760
C442	WP	M60
C479	HC SMK	M84 HC
C513	APERS-T	M546
C463	HERA	M548
C448	HEP-T	M327
C462	HE/AP	M444

DODAC	155 mm	NOM
D563	DPICM	M483A1
D864	DPICM-ER	M864
D544	HE	M107
D579	RAP	M579
D505	ILLUM	M485
D528	WP (M825)	M825
D550	WP (M110)	M110
D506	SMK-HC	M116A1
D502	ADAM-SD	M731
D509	RAAM-SD	M741
D510	CPHD	M712

DODAC	FUZE	DODAC	CHARGES
N340	PD (M739)	D540	GB, M3A1
N464	VT (M732)	D541	WB, M4A2
N285	MTSQ (M577)	D533	7-RB
N286	MTSG (M582)	D532	8-RB

DODAC	MLRS	NOM
H104	JED	M26 DPICM
PL81	JEE	M39 Missile
H108	JEL	M77 DPICM

(c) Unit CSR is published in the Corps/Division OPLANs and OPORD. The CSR reflects day X2 of the exercise.

(d) If a 155 mm battalion is given a reinforcing mission, the CSR for both white bag and green bag are the reverse of the DS battalion and will not draw any special munitions (Copperhead, APS, AMS, and WP). The battalion will draw SMB and SMC. However, all munitions except for Copperhead can be cross-leveled between the DS and R battalions as directed by the FSCOORD.

(e) Notional firing units of the reinforcing/GS/GSR battalion/battery will receive delivery of their CSR at 2400 hours daily. They will begin the exercise with their START-EX UBL on hand. The unit must request ammunition using DA FORM 581, signed by the FA CSS O/C to replace ammunition expended/destroyed, not to exceed the CSR.

(f) Units may request additional allocations of ammunition beyond their CSR. The two types of requests are Immediate Consumption and an Adjustment to their CSR.

(1) Immediate consumption is designed to supplement the CSR when a majority of the ammo has been consumed beyond the planned amount on a given battle. It is not intended as a combat multiplier. In order to force units to prioritize missions, an immediate consumption request must be submitted through the BDE S4 to the DIVISION G3, with a copy furnished to the DIVARTY S4 (FA CSS O/C). The request for immediate consumption must be submitted at least 24 hours before the DS BN intends to use it. The immediate consumption request will never exceed 50% of the JMRC CSR, since its intent is to replace CL V expended in a heated battle and "get the battalion through" until they can next draw their CSR. If the immediate consumption ammunition isn't entirely expended, DIVARTY will decrease the next CSR by an amount equal to the remaining ammunition.

(2) An adjusted RSR is a forecasting tool BN XO's and S3s can use to weight a battle on a certain day. DS BNs can submit adjustments to their RSR NLT 48 hours prior to the requested pick-up time for the CSR. The adjustment is sent through the BN S3 to the BDE S3, with a copy furnished to the both the DIVARTY S3 and DIVARTY S4. Adjustment documentation to the RSR is a DA Form 581s along with an analysis memorandum that expresses the adjusted RSR in terms of rounds by type by tubes per day. BDEs will then coordinate the adjusted RSR with DAO. DAO will forward RSR adjustment documentation through the EXCON to the FS TAF. The DIVARTY Commander will review changes to the RSR and the DIVARTY staff will coordinate changes to the CSR based on the RSR documentation. Once coordinated, the Battalion Ammo Officer takes the DA Form 581 and the required amount of haul capability to the ATP at the same time as the CSR is being drawn for the requested date.

(g) 105 mm Howitzers, 155 mm Howitzers, MLRS: Vehicle ammunition carrying capacity for 105 mm, 155 mm, and 227 mm ammunition is IAW the appropriate TM -10 for that vehicle.

(h) Vehicles carrying artillery ammunition will be loaded according to doctrinal/unit load plans and will not have any other items present inside the vehicle or in the bed of the vehicle where ammunition is intended to be carried. The only exception is for JMRC-issued MILES carrying cases. Paladin Battalions will be issued 80mm ammunition boxes to be used for carrying simulated ammunition cards. One ammunition box will replicate one flat rack of ammunition. Only one ammunition box may be carried by one PLS unless specified by the CSS OC ie. Utilization of notional PLS vehicles.

(i) Any artillery ammunition left in the previous position without guards will be considered destroyed, once the firing unit has left the position. The same applies for ammunition stockpiled at proposed locations.

(j) Due to limited maneuver space, ammunition HEMTTs may be replicated at a ratio of 1 actual HEMTT to represent a total of 3 HEMTTs. The only exceptions are HEMTTs carrying MILES cases and mortar Class V HEMTTs. Actual HEMTTs on a 1:1 basis must accomplish resupply of the firing platoons and mortar platoons in the training area.

(k) Units may resupply themselves with Class V via airdrop. Units must request the ammunition before it is delivered, in order to have it added to their ammo on hand.

(l) All ammunition to be resupplied must be requisitioned; for the battery in the training area, the powder canisters and projectiles must be physically delivered and off-loaded. The firing platoon O/C will inspect the DA Form 5515-R from the BAO to the firing platoon after it arrives at the platoon location and note the ammunition delivered. Simulation ammunition cards will also be drawn at the ATP and hauled by the PLS, not to exceed normal ammunition hauling capacity. Each card replicates one actual round. However, the cards are counted and uploaded to replicate the number of rounds required during upload. For time calculations, it will take one soldier one minute to reload one simulated round. When firing, the cards are used to replicate actual round usage during missions. The records of fire must be consistent with the number of rounds (cards) fired. Once the rounds are

expended, the card must be placed in a residue pit. The cards are then processed back into the system through the BSA, for future use.

(m) Artillery ammunition will not exceed 3 x PLS haul capacities worth of rounds above a DS battalion's UBL. Ammunition that exceeds this will not be delivered to or stored at the BSA, and will be removed from the BSA by division and transported to the main effort brigade. Ammunition for immediate consumption can still be pushed by Corps based on requirements in the Brigade plan.

(n) M109A6s and M998 (Carrier Ammunition Track) will be reconstituted with 27 M483A1 (DPICM), 10 M107 (HE), 2 M712 (Copperhead), 29 M4A2 (WB) and 10 M3A1 (GB). The M998 will have 80 M483A1, 10 M825 (Smoke), 3 M712 (Copperhead), 63 M4A2 (WB), 20 M3A1 (GB) and 10 M119A2 (RB). PLS' are not a WSRO item and will be resupplied from unit CSR. See Chapter 8, Paragraph 8-4.a.4.

4-14 FS in MOUT: See Chapter 2, paragraph 2-5k.